



FAX:
PHONE: 785-267-8161
SAMPLE TYPE: OIL
SAMPLE SHIP TIME (days): 7

COMPANY NAME :
CUSTOMER EQUIP NUM : NLC00260
COMPARTMENT NAME : HYDRAULIC SYSTEM
SERIAL NUMBER : NLC00260
MANUFACTURER : CATERPILLAR
MODEL : 299D
JOB SITE :
EXT WARR NUMBER :

SHOP JOB NUM : SHOP
COMP SERIAL NUM :
COMPARTMENT MODEL :
COMP MANUFACTURER :
SAMPLE LABEL NUM :
FLUID BRAND/WEIGHT :
FLUID TYPE :
EXT WARR EXPIRE DATE :
FUEL CONSUMED :

FOLEY
EQUIPMENT



SOS Services Laboratory
1550 S. West St.
Wichita, KS 67213-1668
316-943-4211
www.foleytractor.com

LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
E130-43098-2003	4/1/13	4/8/13	497 HR	497 HR	Unknown			Yes
No Action Required FIRST SAMPLE/NO TREND ESTABLISHED. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS. RESAMPLE IN 500 HRS TO ESTABLISH A TREND.								

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ca	Mg	Zn	P
E130-43098-2003	4	7	0	1	1	0	2	0	1	2	1	0	0	429	10	793	629

Oil Condition / Particle Count (ct/ml)	ST	OXI	NIT	SUL	W	A	V100	ISO	4μ	6μ	10μ	14μ	18μ	21μ	38μ	50μ
E130-43098-2003	0	4	3	13	N	N	7.2	23/22/20	59079	32347	11316	5647	3100	2062	423	244

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying index, NaW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

COMPANY NAME :
CUSTOMER EQUIP NUM : NLC00260
COMPARTMENT NAME : ENGINE
SERIAL NUMBER : NLC00260
MANUFACTURER : CATERPILLAR
MODEL : 299D
JOB SITE :
EXT WARR NUMBER :

SHOP JOB NUM : SHOP
COMP SERIAL NUM :
COMPARTMENT MODEL :
COMP MANUFACTURER :
SAMPLE LABEL NUM :
FLUID BRAND/WEIGHT : CAT
FLUID TYPE :
EXT WARR EXPIRE DATE :
FUEL CONSUMED :

FOLEY
EQUIPMENT

CAT

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LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
E130-43098-1082	4/1/13	4/8/13	497 HR	350 HR	Yes			Yes
No Action Required	POTASSIUM IS SLIGHTLY HIGH. COULD BE DUE TO AN ENVIRONMENT WHEN FERTILIZERS ARE STORED. NONE OF THESE READINGS APPEAR TO BE URGENT. RESAMPLE AT NORMAL INTERVAL.							
E130-43058-1017	1/28/13	2/27/13	150 HR	150 HR	Yes	2.5	GAL	Yes
No Action Required	FIRST SAMPLE/NO TREND ESTABLISHED. DATA APPEARS TO SHOW NORMAL BREAK-IN WEAR. RESAMPLE IN 250 HRS TO ESTABLISH A TREND.							

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ca	Mg	Zn	P
E130-43098-1082	5	40	1	4	0	0	10	3	31	25	4	0	0	2250	314	1253	1075
E130-43058-1017	17	36	1	5	1	0	19	4	8	49	49	1	0	1825	771	1279	1077

Oil Condition / Particle Count (ct/ml)	ST	OXI	NIT	SUL	W	A	F	PFC	V100
E130-43098-1082	36	16	9	20	N	N	N		16.2
E130-43058-1017	14	14	8	18	N	N	N	0.92	11.4

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying index, NaW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C

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COMPANY NAME :
CUSTOMER EQUIP NUM : NLC00260
COMPARTMENT NAME : HYDRAULIC SYSTEM
SERIAL NUMBER : NLC00260
MANUFACTURER : CATERPILLAR
MODEL : 299D
JOB SITE :
EXT WARR NUMBER :

SHOP JOB NUM :
COMP SERIAL NUM :
COMPARTMENT MODEL :
COMP MANUFACTURER :
SAMPLE LABEL NUM :
FLUID BRAND/WEIGHT :
FLUID TYPE :
EXT WARR EXPIRE DATE :
FUEL CONSUMED :

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SAMPLE TYPE: OIL

SAMPLE SHIP TIME (days) : 1

LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
E130-44134-2008	5/13/14	5/14/14	1066 HR	1066 HR	No			No
No Action Required	WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE IN 500 HRS.							
E130-43098-2003	4/1/13	4/8/13	497 HR	497 HR	Unknown			Yes
No Action Required	FIRST SAMPLE/NO TREND ESTABLISHED. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS. RESAMPLE IN 500 HRS TO ESTABLISH A TREND.							

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ca	Mg	Zn	P
E130-44134-2008	3	12	0	0	0	0	2	1	0	3	0	0	0	506	6	972	762
E130-43098-2003	4	7	0	1	1	0	2	0	1	2	1	0	0	429	10	793	629

Oil Condition / Particle Count (ct/ml)	ST	OXI	NIT	SUL	W	A	V100	ISO	4μ	6μ	10μ	14μ	18μ	21μ	38μ	50μ
E130-44134-2008	0	5	3	15	N	N	7.0	23/19/13	50214	3947	72	44	31	25	11	7
E130-43098-2003	0	4	3	13	N	N	7.2	23/22/20	59079	32347	11316	5647	3100	2062	423	244

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying index, NaW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C

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COMPANY NAME :
CUSTOMER EQUIP NUM : PLC00260
COMPARTMENT NAME : HYDRAULIC SYSTEM
SERIAL NUMBER : PLC00260
MANUFACTURER : CATERPILLAR
MODEL : 299D
JOB SITE :
EXT WARR NUMBER :

SHOP JOB NUM :
COMP SERIAL NUM :
COMPARTMENT MODEL :
COMP MANUFACTURER :
SAMPLE LABEL NUM :
FLUID BRAND/WEIGHT :
FLUID TYPE :
EXT WARR EXPIRE DATE :
FUEL CONSUMED :



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SAMPLE TYPE: OIL
SAMPLE SHIP TIME (days) : 7

LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
E130-45138-2031	5/11/15	5/18/15	1505 HR	1505 HR	Unknown			Yes
No Action Required FIRST SAMPLE/NO TREND ESTABLISHED. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS. RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND.								

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ca	Mg	Zn	P
E130-45138-2031	3	14	0	1	1	1	2	0	0	2	0	0	0	239	5	774	614

Oil Condition / Particle Count (ct/ml)	ST	OXI	NIT	SUL	W	A	V100	ISO	4μ	6μ	10μ	14μ	18μ	21μ	38μ	50μ
E130-45138-2031	0	4	2	12	N	N	7.4	23/23/17	66015	41487	9284	1224	590	463	171	103

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying index, NaW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C

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SAMPLE TYPE: OIL

SAMPLE SHIP TIME (days): 17

COMPANY NAME :
CUSTOMER EQUIP NUM : PLC00260
COMPARTMENT NAME : FINAL DRIVE RIGHT
SERIAL NUMBER : PLC00260
MANUFACTURER : CATERPILLAR
MODEL : 299D
JOB SITE :
EXT WARR NUMBER :

SHOP JOB NUM :
COMP SERIAL NUM :
COMPARTMENT MODEL :
COMP MANUFACTURER :
SAMPLE LABEL NUM :
FLUID BRAND/WEIGHT : UNKNOWN/UNKNOWN
FLUID TYPE :
EXT WARR EXPIRE DATE :
FUEL CONSUMED :

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LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
E130-45138-4031	5/1/15	5/18/15	1505 HR	1255 HR	Yes			
No Action Required	BREAK-IN WEAR CONTINUES. RESAMPLE IN 500 HRS.							
E130-43050-4019	2/1/13	2/19/13	250 HR	250 HR	Yes	1	QT	
No Action Required	FIRST SAMPLE/NO TREND ESTABLISHED. RELATIVELY HEAVY BREAK-IN WEAR. RESAMPLE IN 500 HRS TO ESTABLISH A TREND.							

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ca	Mg	Zn	P
E130-45138-4031	20	228	3	3	0	1	4	3	3	237	0	1	0	30	191	34	1226
E130-43050-4019	6	440	11	3	1	0	14	22	7	437	26	1	0	30	831	68	1370

Oil Condition / Particle Count (ct/ml)	W	V100	PQI
E130-45138-4031	N	20.9	144
E130-43050-4019	N	12.7	297

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying index, NaW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C

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